

Figure 1

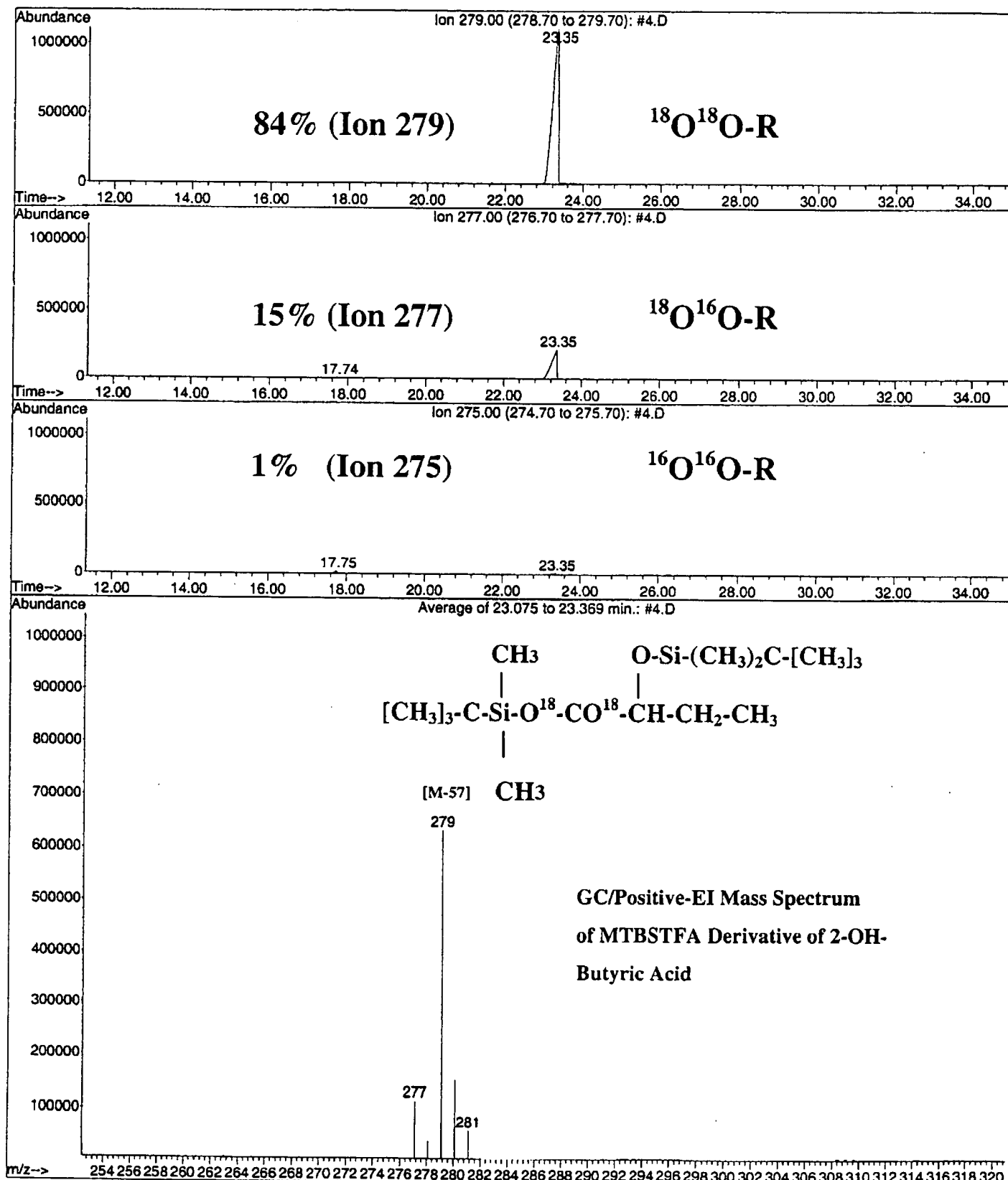


Figure 2

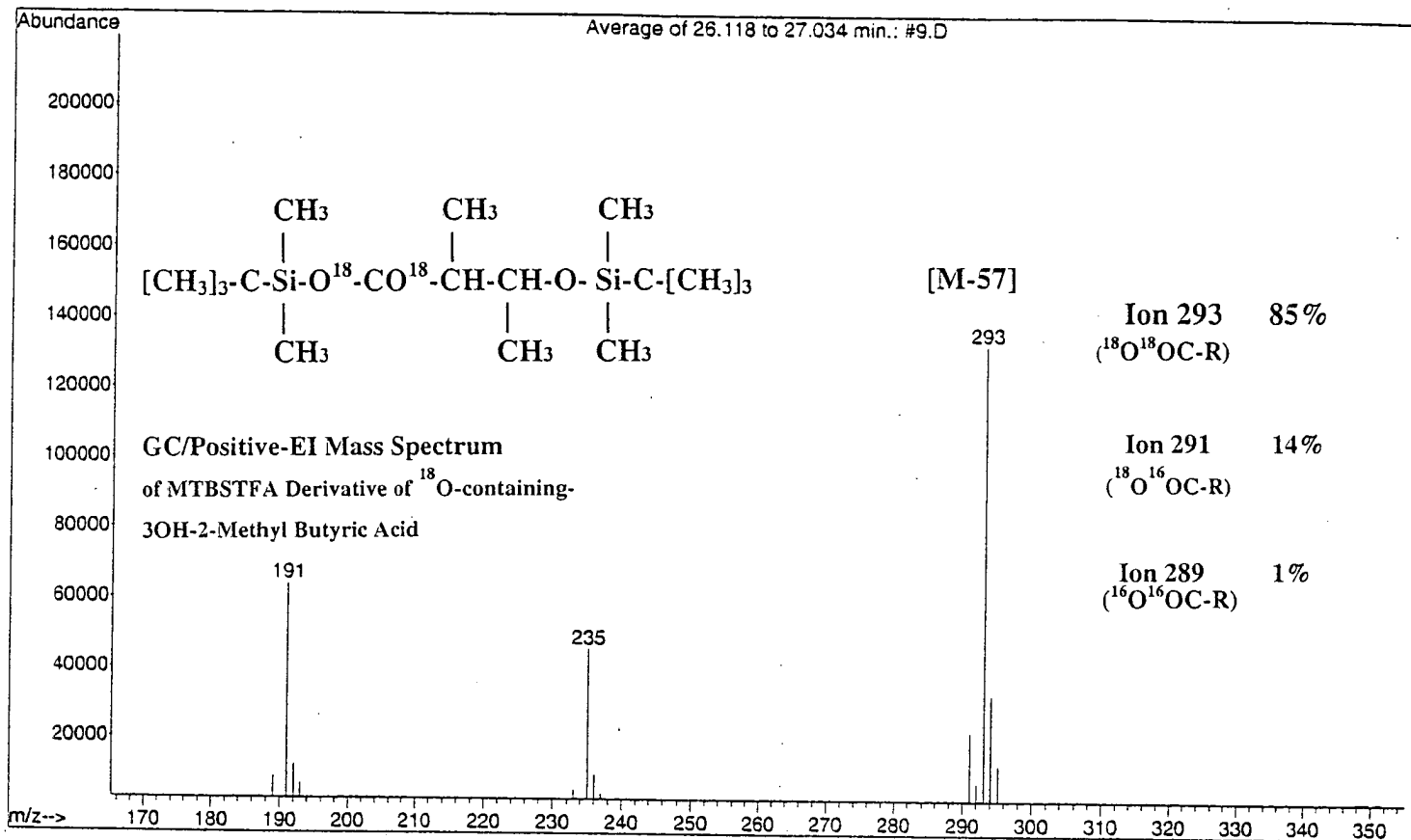


Figure 3

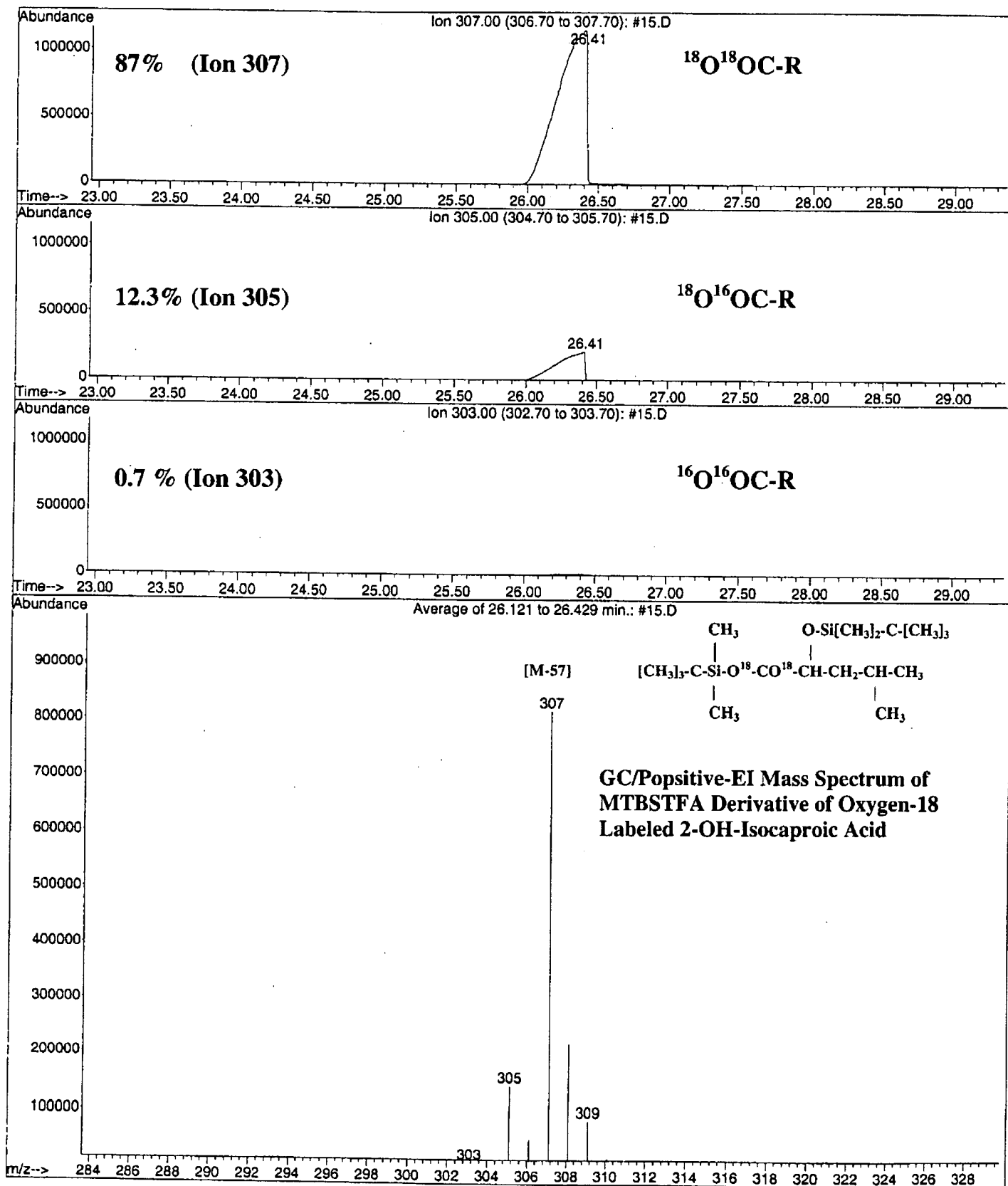


Figure 4

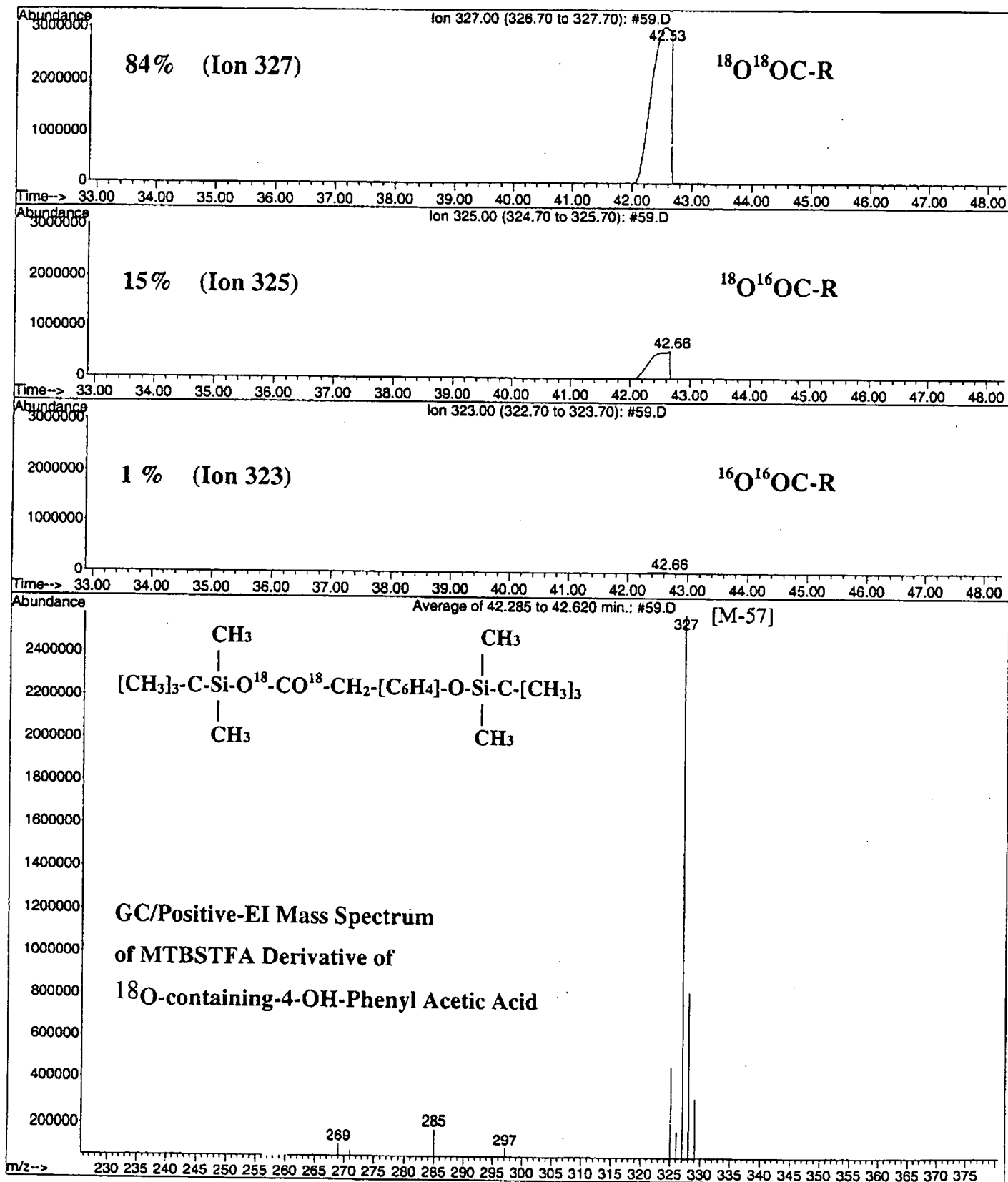


Figure 5

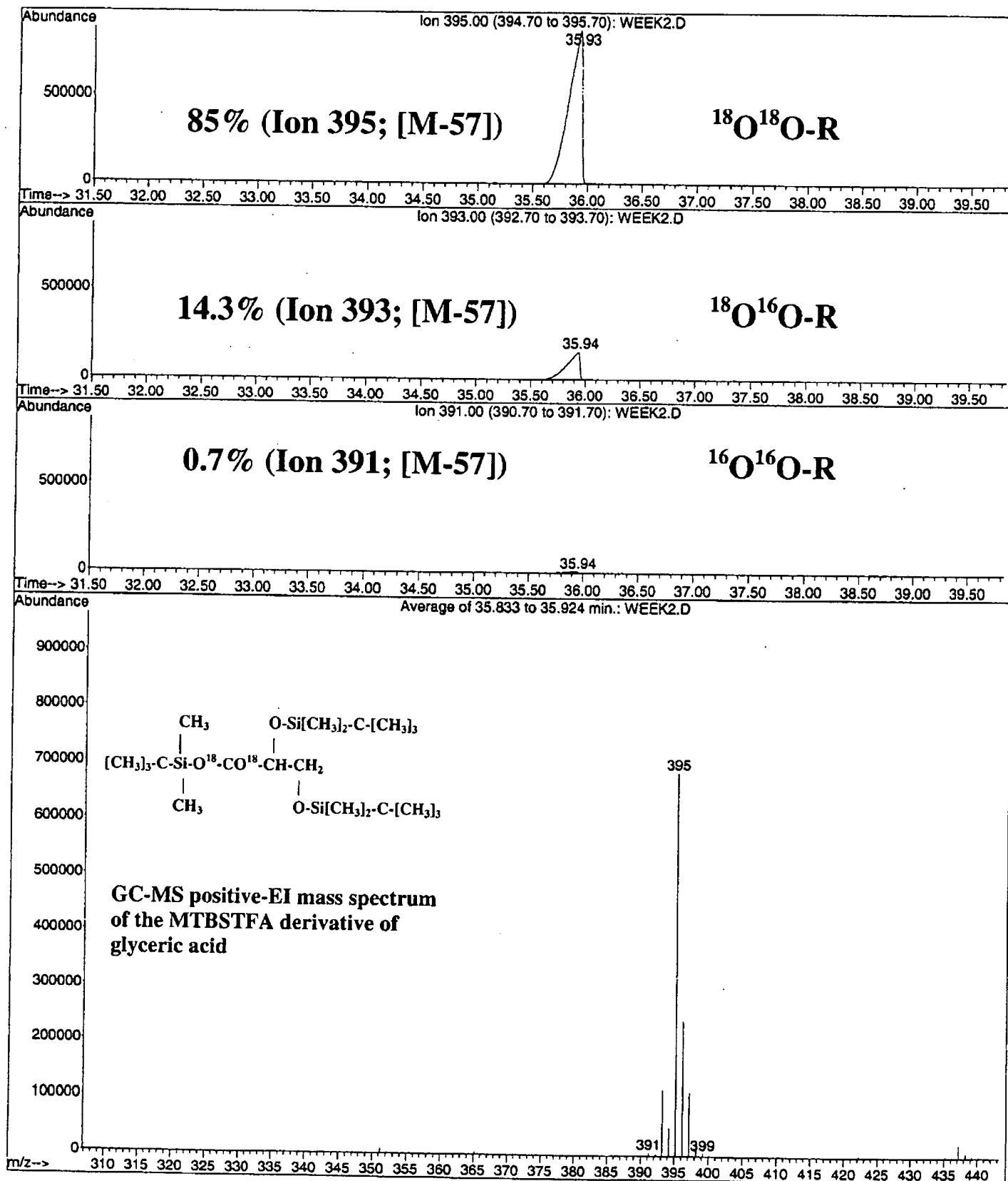


Figure 6

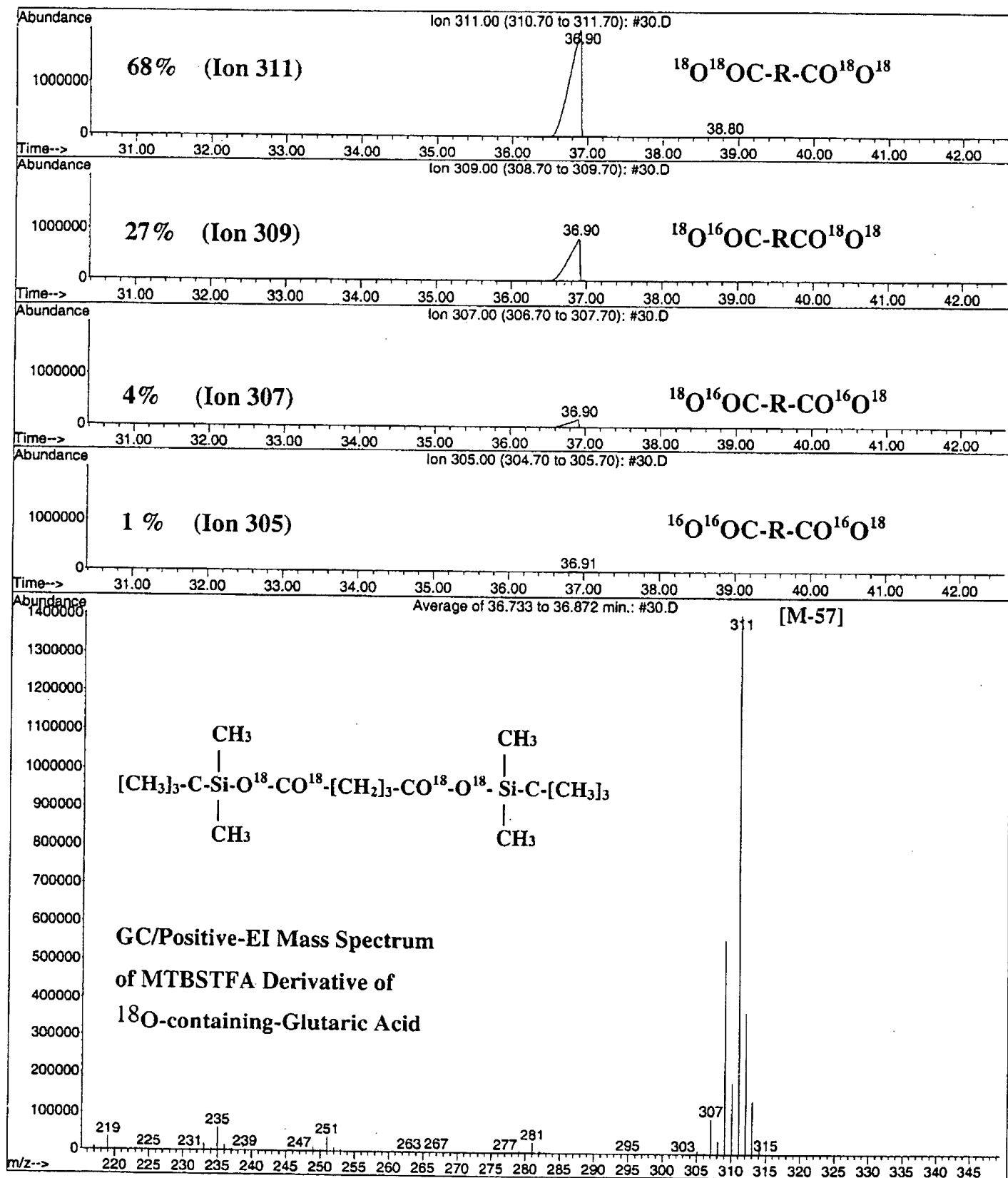


Figure 7

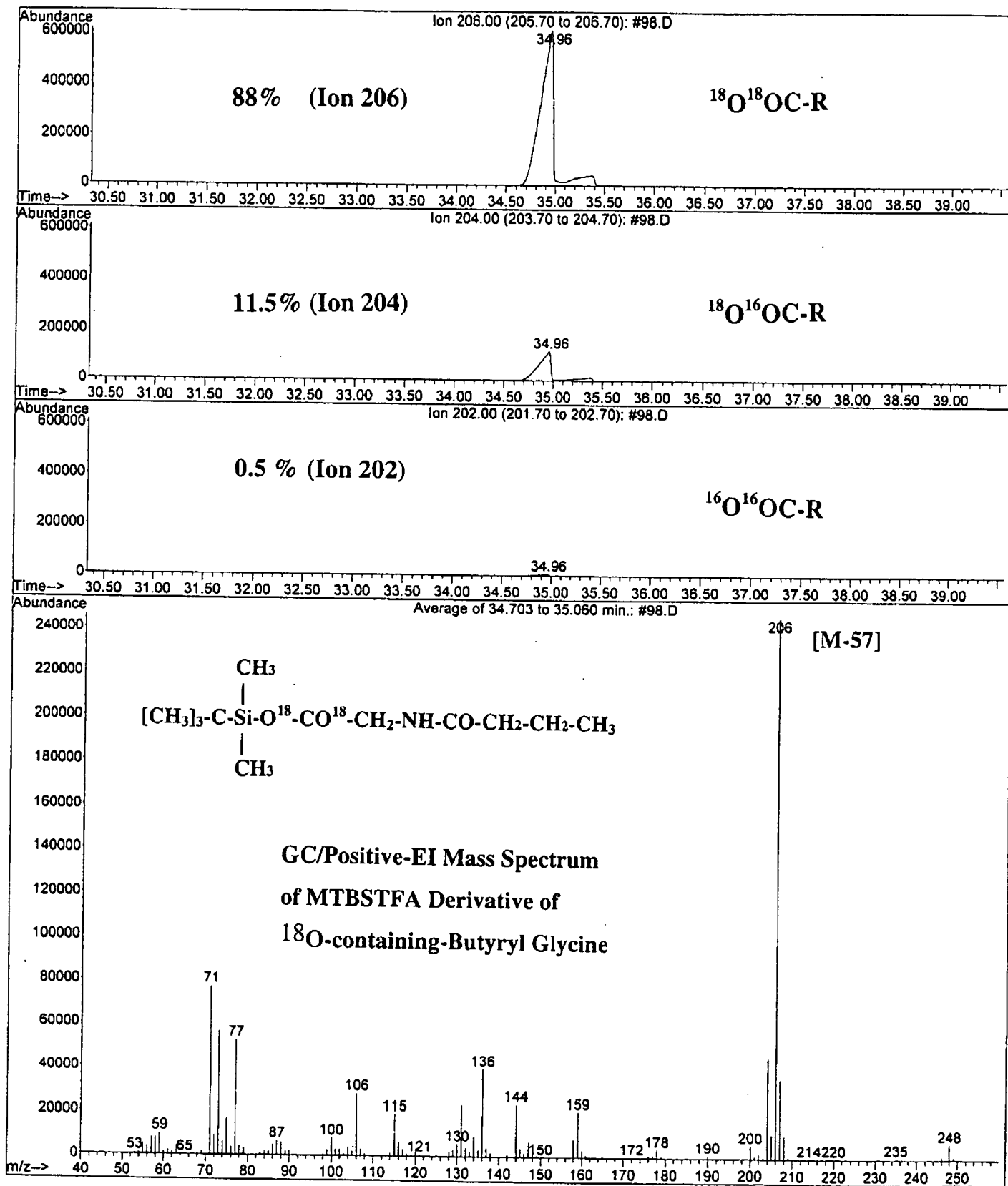


Figure 8

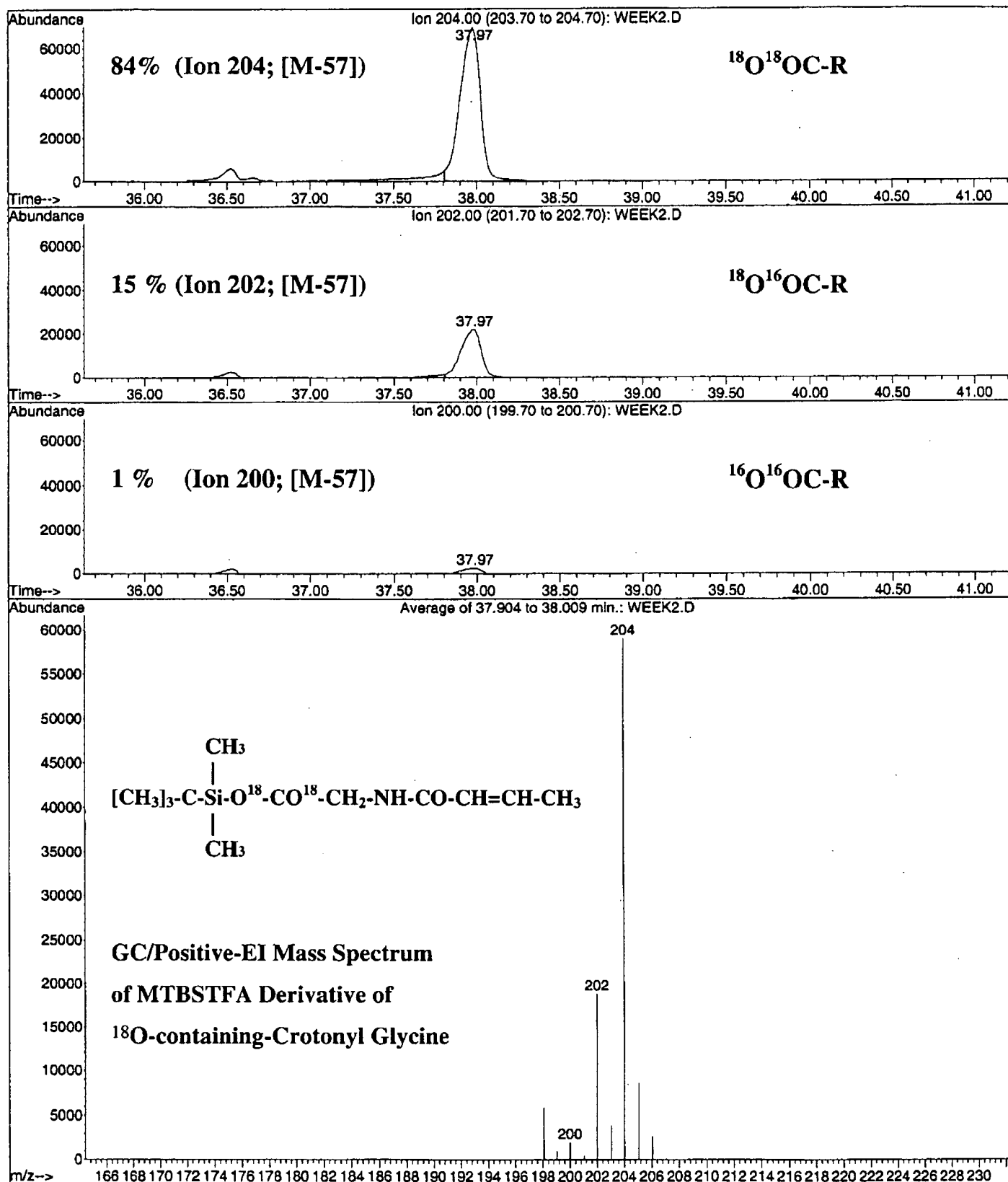


Figure 9

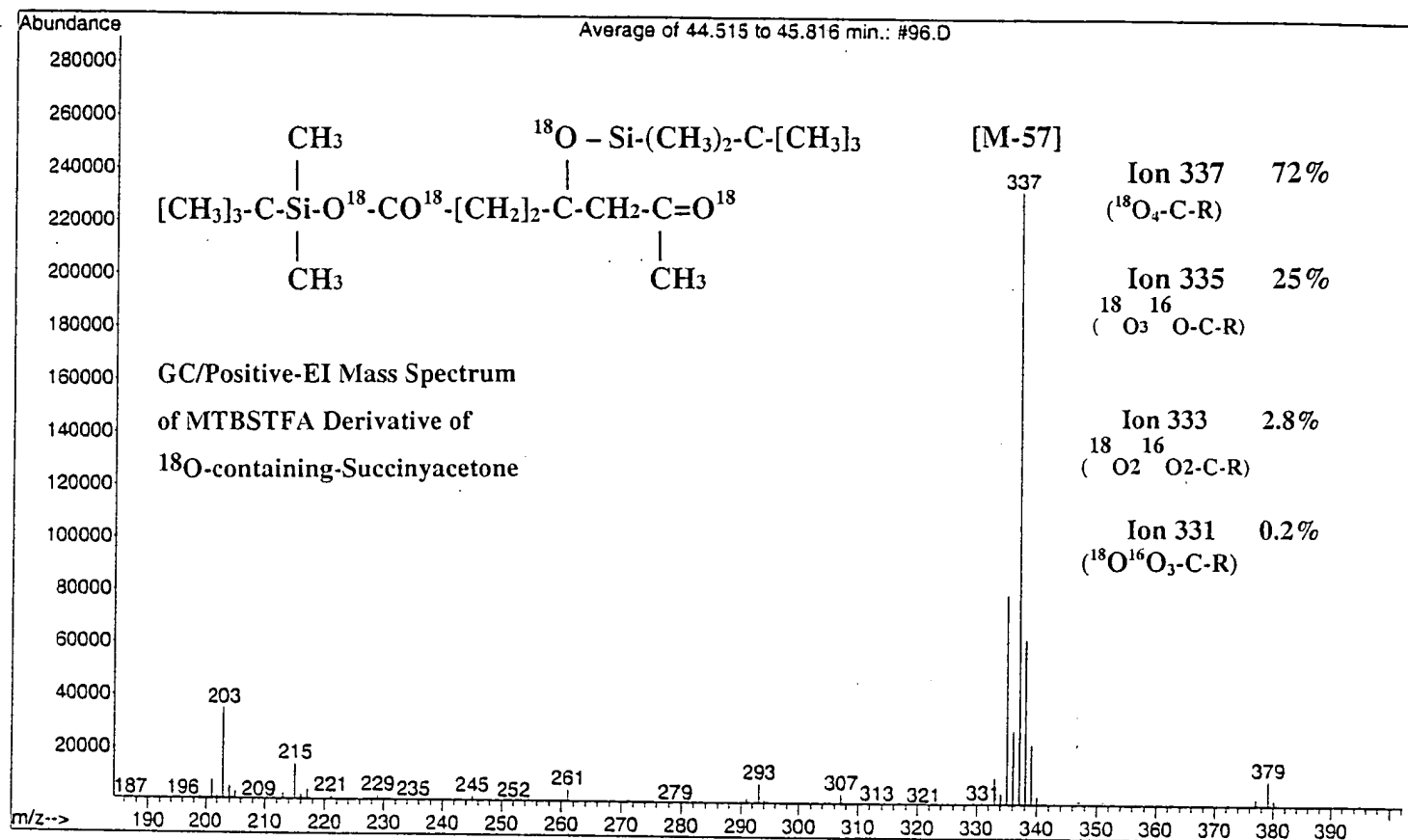


Figure 10

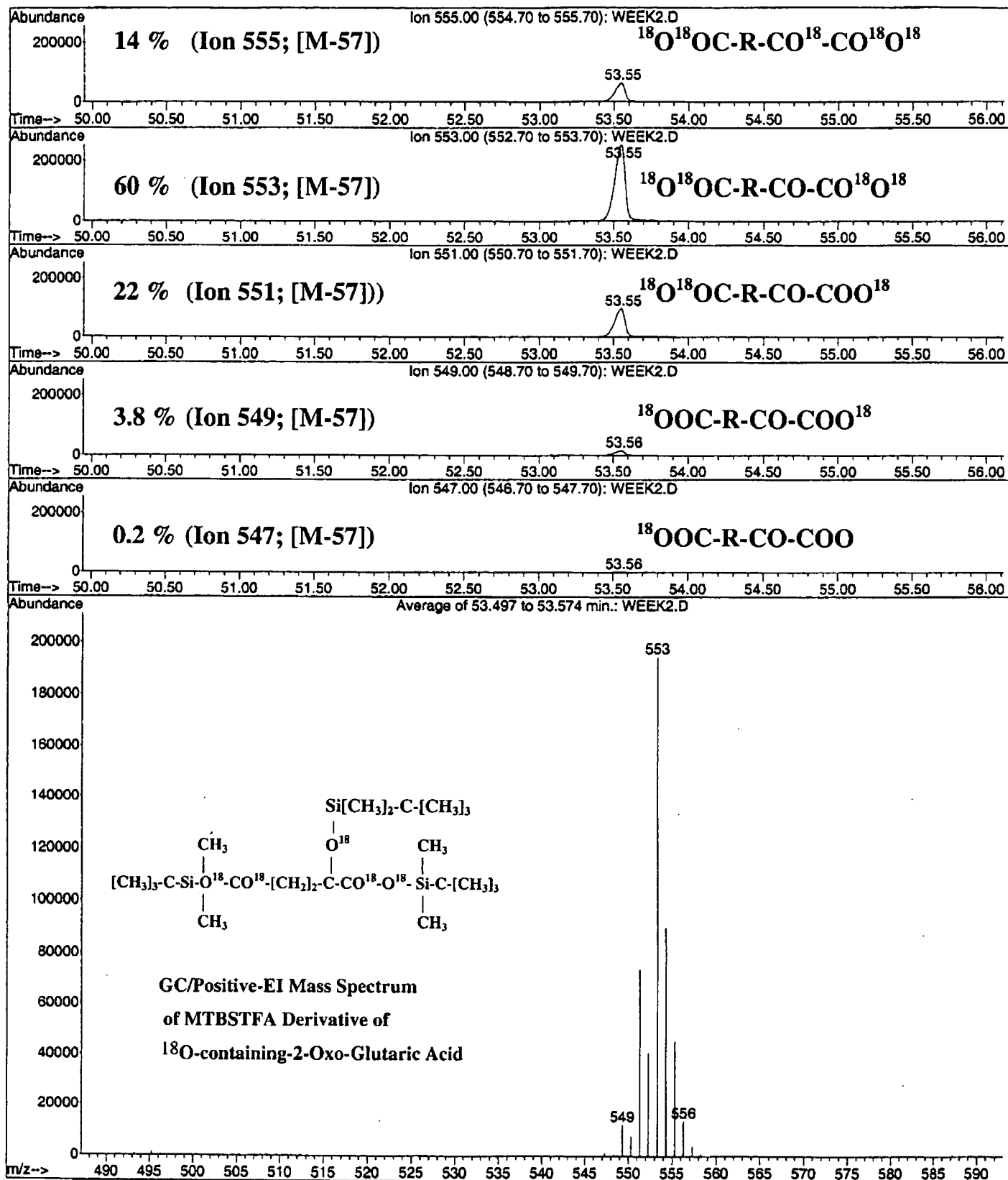
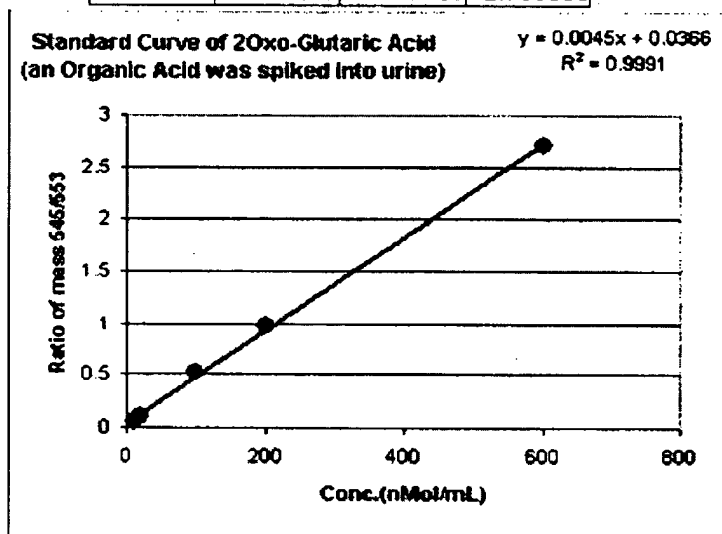


Figure 11. Quantitative Analyses of 2-Oxo Glutaric Acid Using ^{18}O -Standard

nMol/mL	Sta. Area	I.S Area	Ratio
10	99282	1911058	0.051951
20	159741	1548286	0.103173
100	812365	1574774	0.515861
200	1682033	1731756	0.971288
600	6660242	2457755	2.709888



a	b
0.0045	0.0366
0.0045	0.0366
0.0045	0.0366
0.0045	0.0366

	<u>Sam. Area</u>	<u>I.S. Area</u>	<u>$x=(y-b)/a$ (nMol/mL)</u>
QC sample-1 (25 nM)	204106	1522543	21.65689
QC sample-2 (500 nM)	4760764	2038057	510.9628
Spiked sample-1 (50 nM)	436352	1686953	49.34729
Spiked sample-2 (200 nM)	1802739	1848618	208.5738

Figure 12

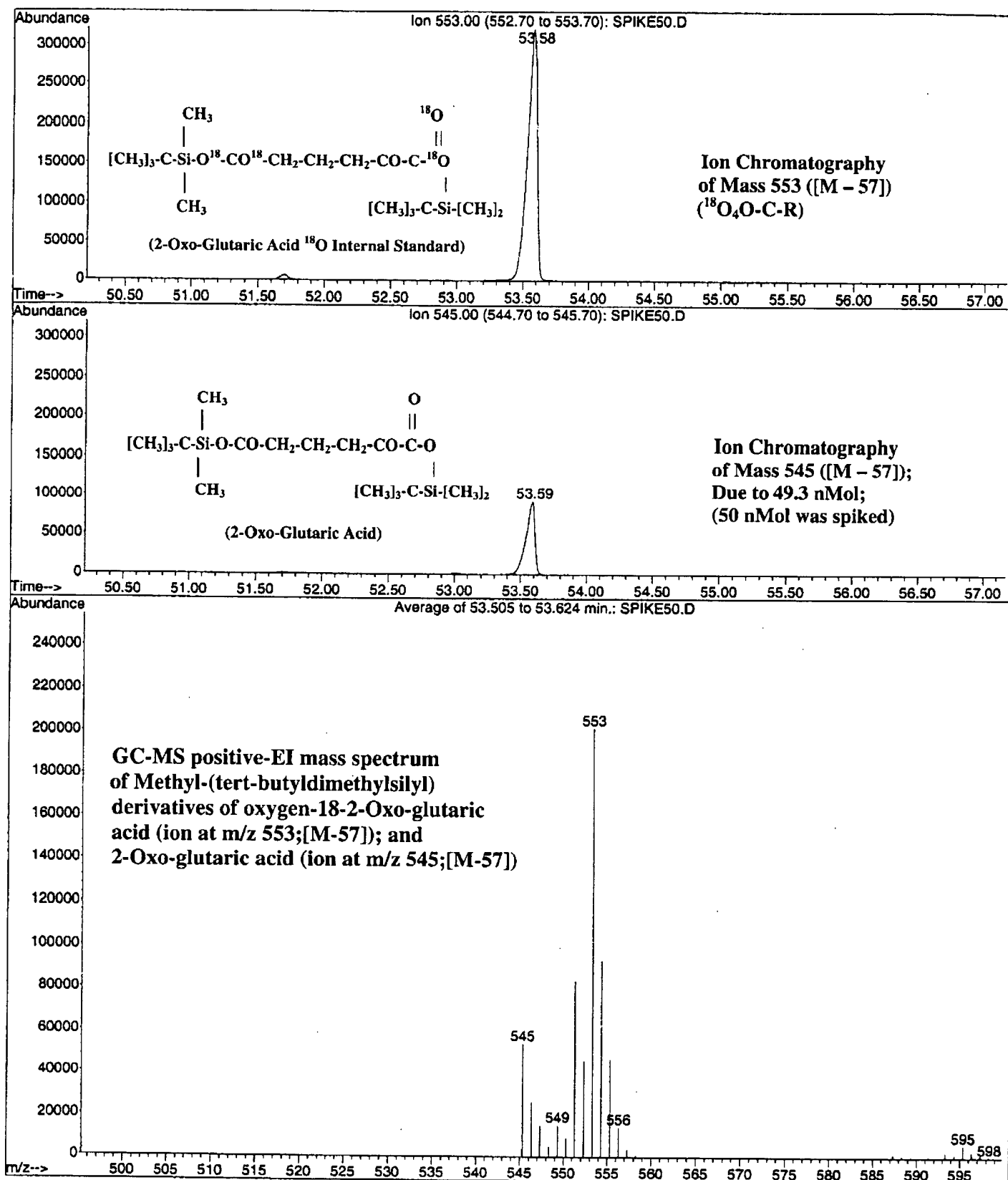
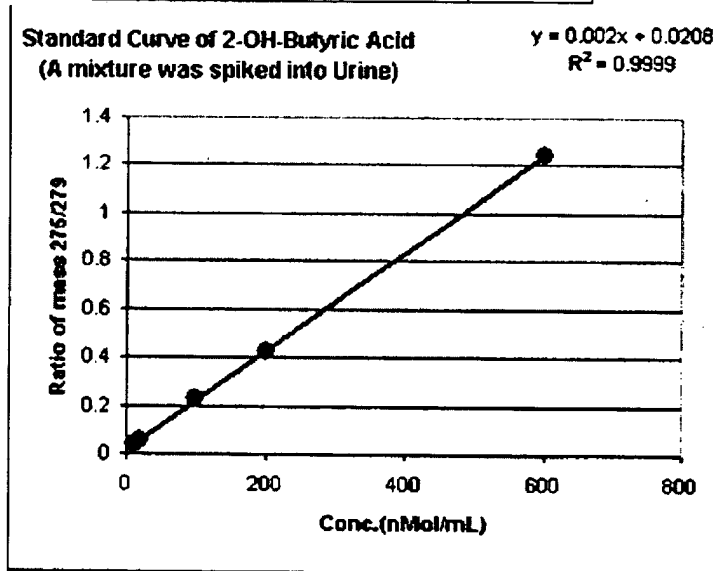


Figure 13. Quantitative Analyses of 2-OH-Butyric Acid Using ^{18}O Standard

nMol/mL	Sta. Area	IS. Area	Ratio
10	262735	6538901	0.04018
20	252854	4361156	0.057979
100	1350819	5846408	0.231051
200	2752413	6474802	0.425096
600	7127199	5745837	1.240411



a	b
0.002	0.0208
0.002	0.0208
0.002	0.0208
0.002	0.0208
0.002	0.0208

	<u>Sam. Area</u>	<u>I.S. Area</u>	<u>$x=(y-b)/a$ (nMol/mL)</u>
QC sample-1 (25 nM)	455896	5948434	27.92067
QC sample-2 (150 nM)	2193354	6626783	155.0916
QC sample-3 (500 nM)	5566084	5866775	463.9734
Spiked sample-1 (50 nM)	644325	5143162	52.239
Spiked sample-2 (400 nM)	5762361	6306218	446.4793

Figure 14

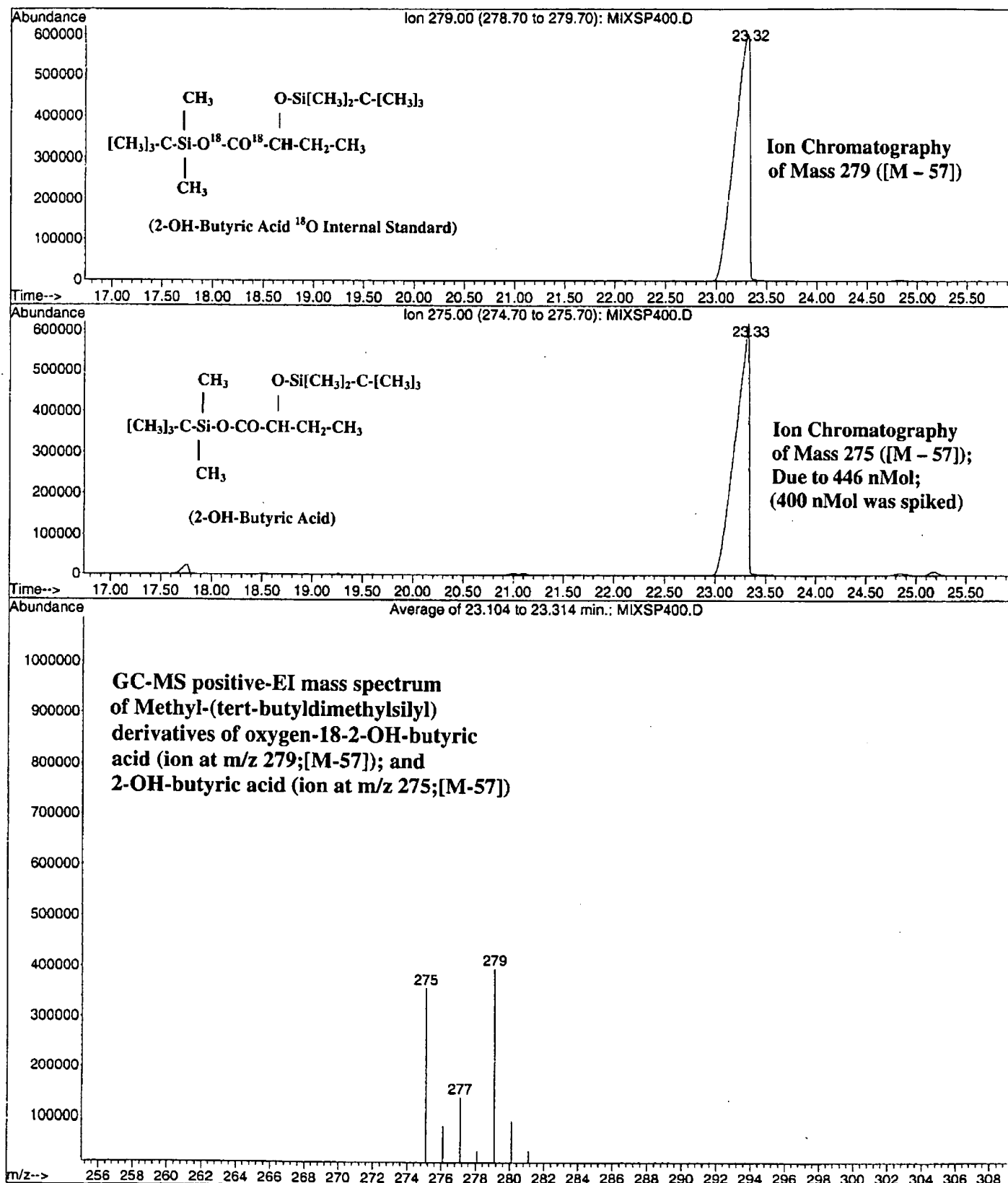
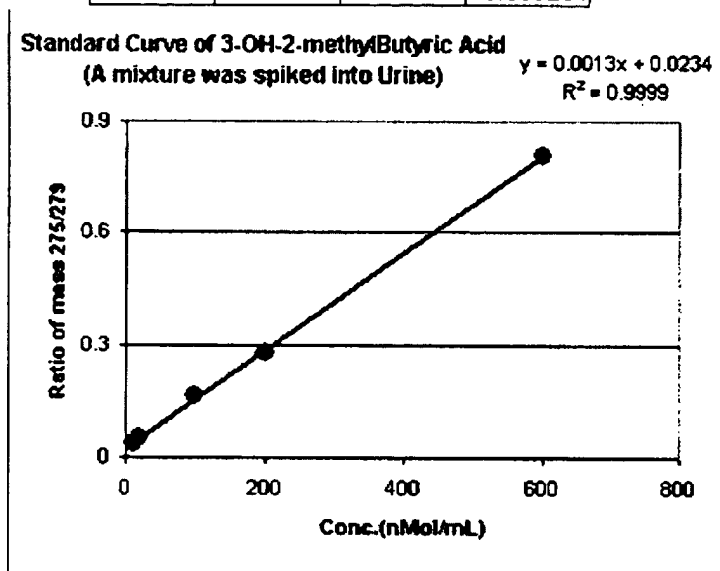


Figure 15. Quantitative Analyses of 3-OH-3-Methyl Butyric Acid Using ^{18}O -Standard

nMol/mL	Sta. Int.	IS Int.	Ratio
10	4446	121509	0.03659
20	4436	92023	0.048205
100	14663	91820	0.159693
200	28954	103378	0.280079
600	74919	92577	0.809261



a	b
0.0013	0.0234
0.0013	0.0234
0.0013	0.0234
0.0013	0.0234
0.0013	0.0234

	<u>Sam. Int.</u>	<u>I.S. Int.</u>	<u>$x=(y-b)/a$ (nMol/mL)</u>
QC sample-1 (25 nM)	4897	79261	29.52556
QC sample-2 (150 nM)	23435	104988	153.7046
QC sample-3 (500 nM)	61873	99796	458.9191
Spiked sample-1 (50 nM)	9229	101920	51.65493
Spiked sample-2 (400 nM)	64894	109735	436.9001

Figure 16

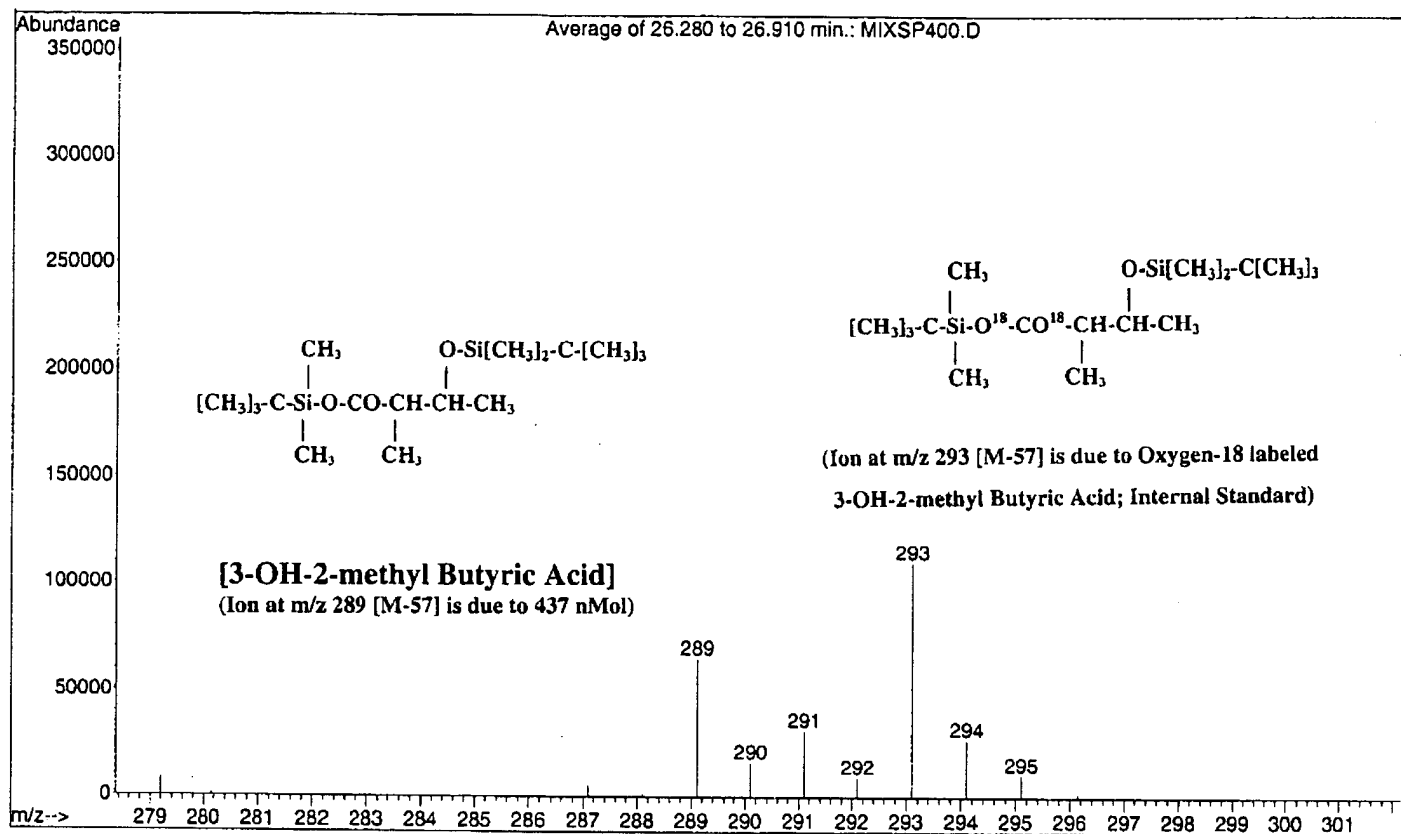
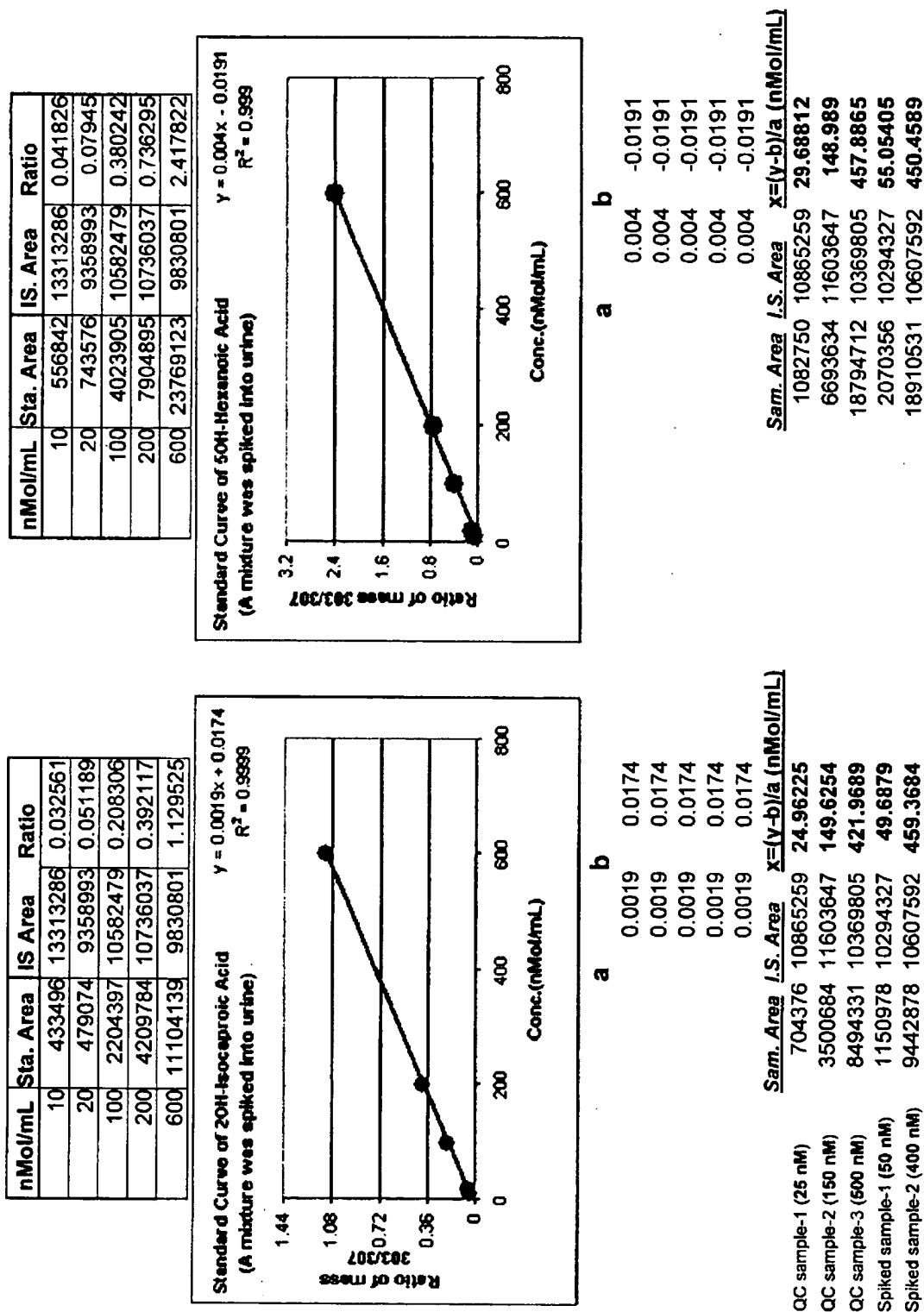


Figure 17. Quantitative Analyses of 2-OH-Isocaproic and 5-OH-Hexanoic Acids Using ¹⁸O-Standard



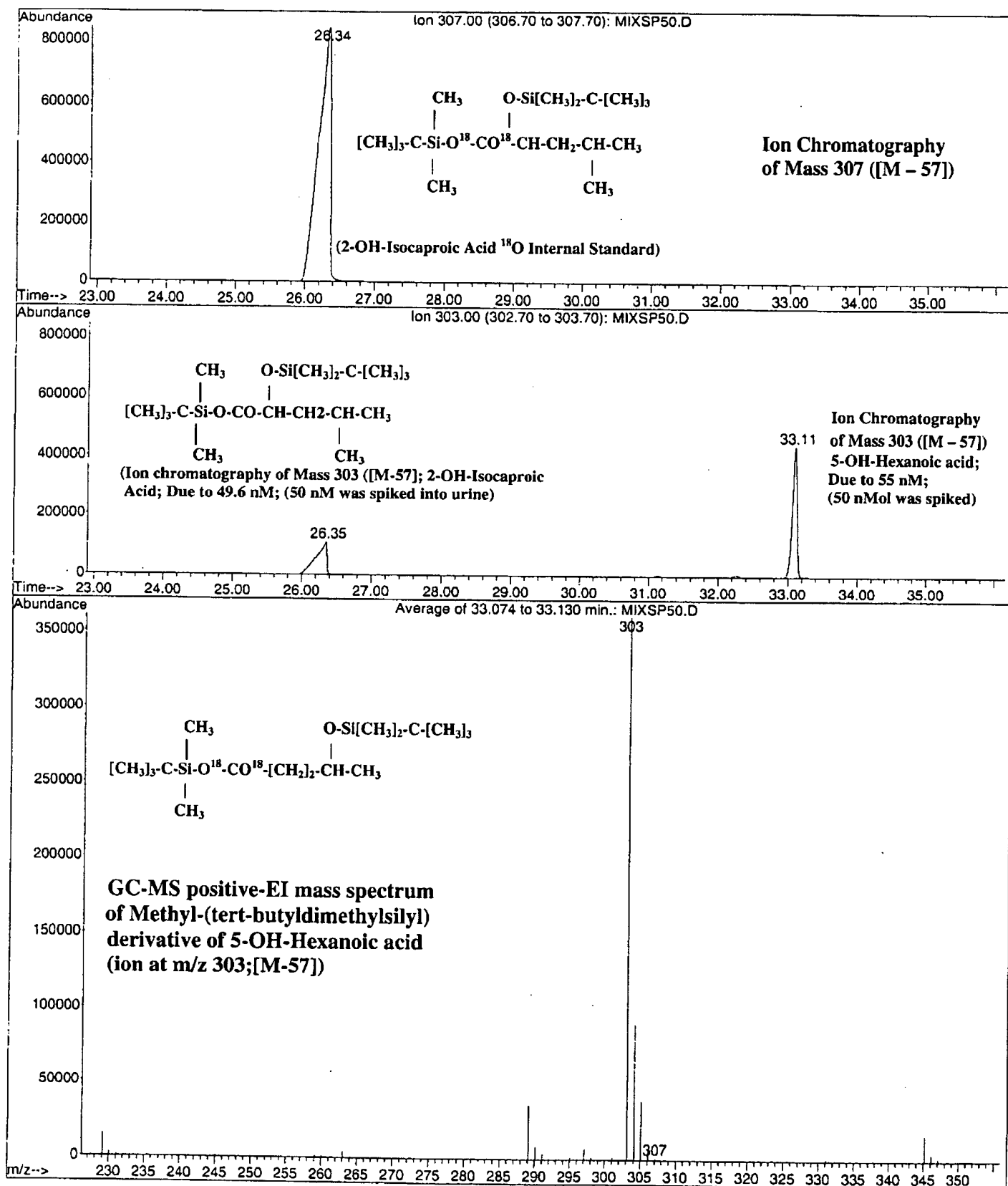
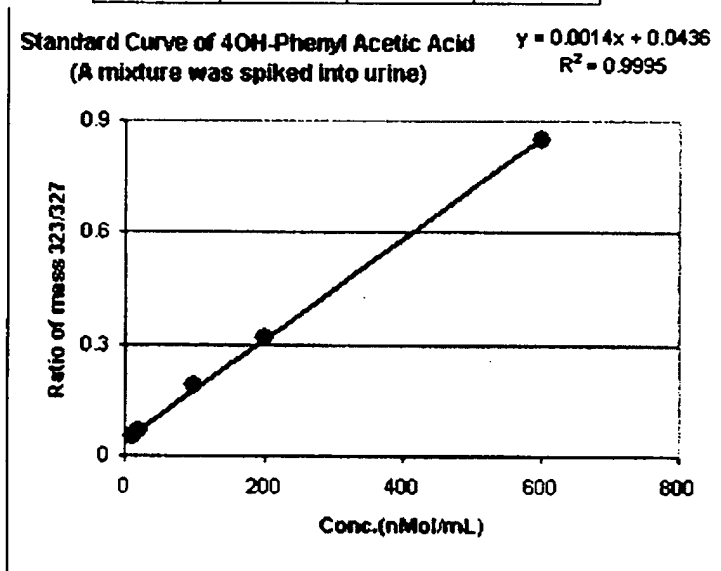


Figure 19. Quantitative Analyses of 4-OH-Phenyl Acetic Acid Using ^{18}O -Standard

nMol/mL	Sta. Area	IS Area	Ratio
10	3014243	57760161	0.052186
20	2798947	43929289	0.063715
100	8364944	44761329	0.186879
200	14302292	44602241	0.320663
600	36919659	43414038	0.850408



a	b
0.0014	0.0436
0.0014	0.0436
0.0014	0.0436
0.0014	0.0436
0.0014	0.0436

	<u>Sam. Area</u>	<u>I.S. Area</u>	<u>$x=(y-b)/a$ (nMol/mL)</u>
QC sample-1 (25 nM)	3364167	45014908	22.23893
QC sample-2 (150 nM)	12175131	50417025	141.3489
QC sample-2 (500 nM)	28601769	45860639	414.3336
Spiked sample-1 (50 nM)	5087964	45749018	48.29623
Spiked sample-2 (400 nM)	31012101	45301685	457.8346

Figure 20

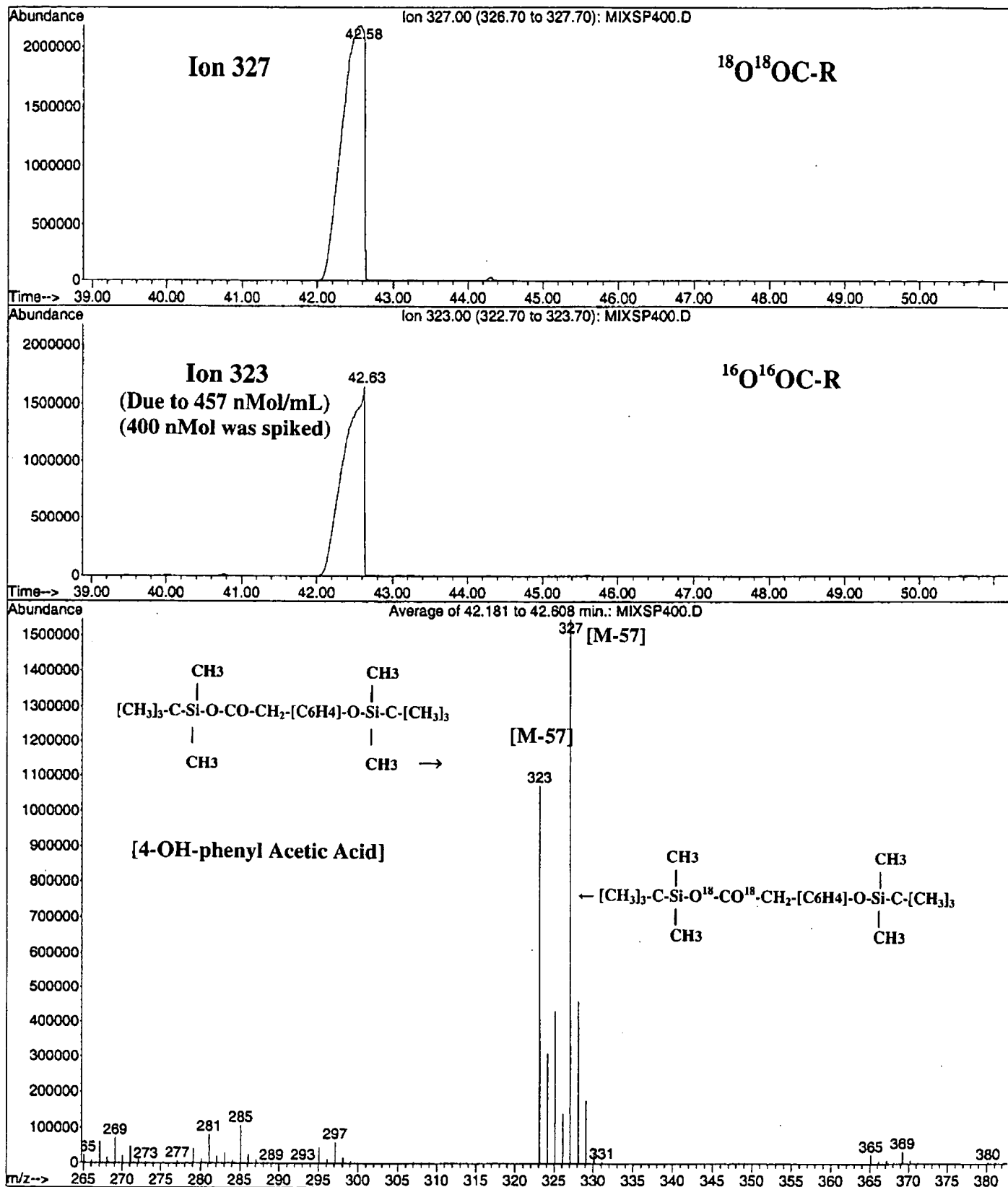
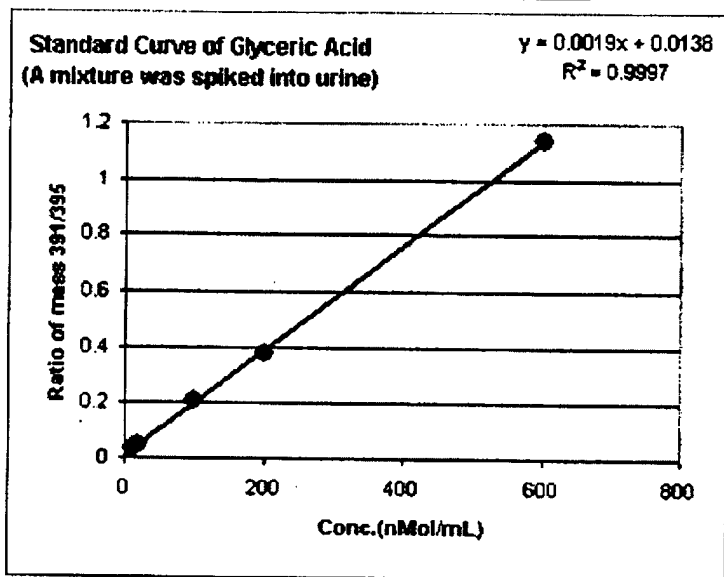


Figure 21. Quantitative Analyses of Glyceric Acid Using ^{18}O -Standard

nMol/mL	Sta. Area	IS Area	Ratio
10	26501	801493	0.033065
20	31674	633191	0.050023
100	136532	647351	0.210909
200	256128	680422	0.376425
600	791264	694796	1.138844



a	b
0.0019	0.0138
0.0019	0.0138
0.0019	0.0138
0.0019	0.0138
0.0019	0.0138

	<u>Sam. Area</u>	<u>I.S. Area</u>	<u>$x=(y-b)/a$ (nMol/mL)</u>
QC sample-1 (25 nM)	44323	608095	31.0991
QC sample-2 (150 nM)	228735	754818	152.2281
QC sample-2 (500 nM)	657868	722247	472.1384
Spiked sample-1 (50 nM)	74115	669773	50.97731
Spiked sample-2 (400 nM)	602067	728922	427.4574

Figure 22

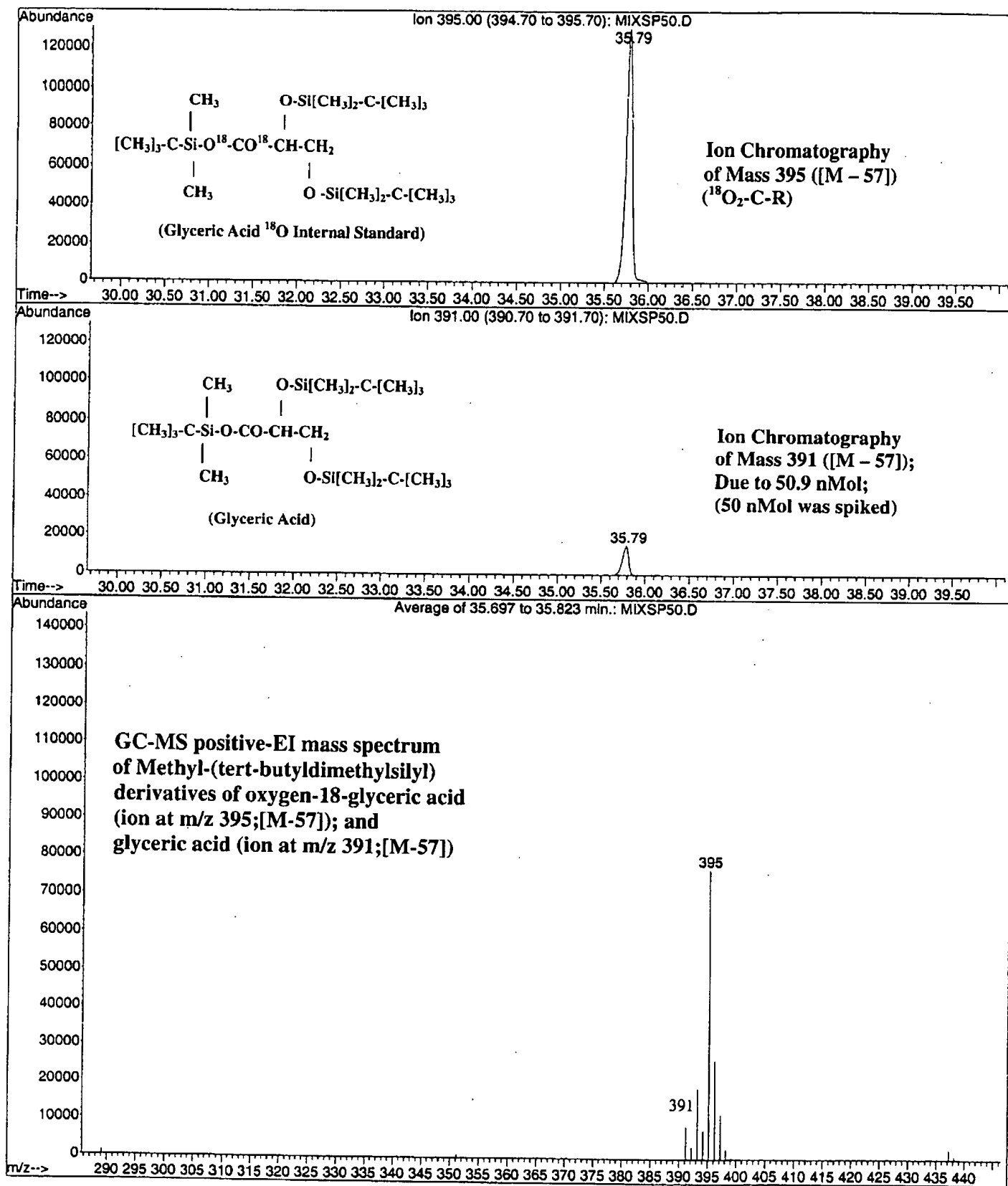
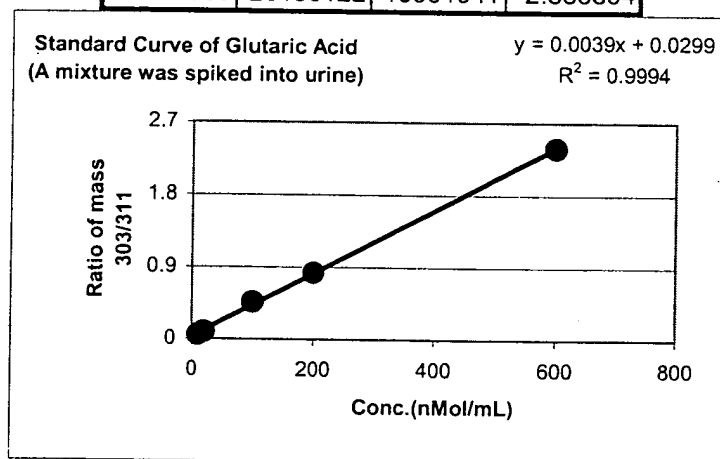


Figure 23. Quantitative Analyses of Glutaric Acid Using ^{18}O -Standard

nM/mL	Sample	I.S	Ratio
10	706042	14233824	0.049603
20	957477	10597092	0.090353
100	4807958	10465071	0.459429
200	9209660	11121729	0.828078
600	26198122	10991941	2.383394



a	b
0.0039	0.0299
0.0039	0.0299
0.0039	0.0299
0.0039	0.0299
0.0039	0.0299

	<u>Sam. Area</u>	<u>I.S. Area</u>	<u>$x=(y-b)/a$ (nMol/mL)</u>
QC sample-1 (25 nM)	1342471	10520794	25.05171
QC sample-2 (150 nM)	7866679	12205842	157.59
QC sample-3 (500 nM)	21304159	9350480	576.5392
Spiked sample-1 (50 nM)	2518098	11005441	51.00124
Spiked sample-2 (400 nM)	16914895	9112873	468.2702

Figur 24

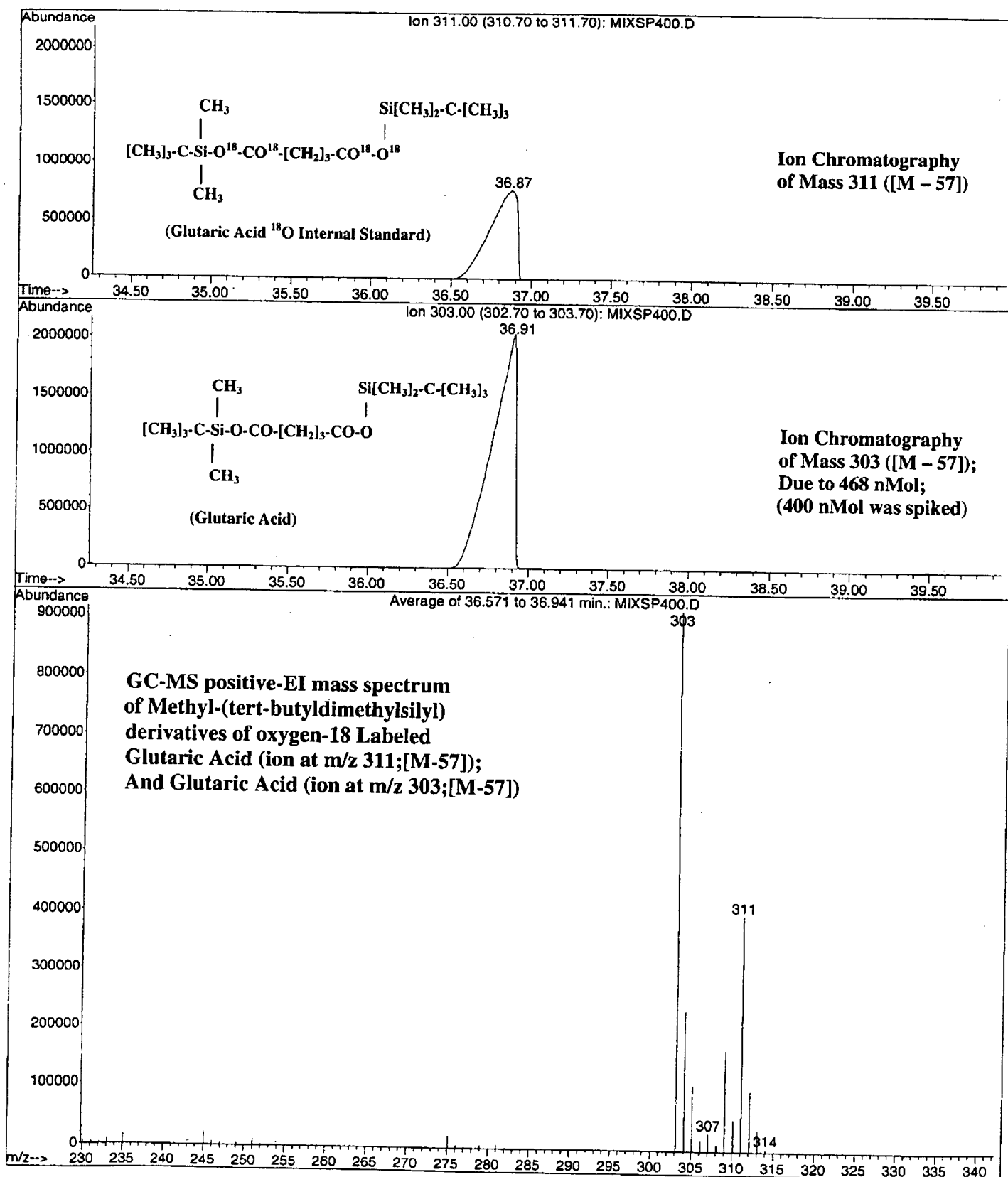


Figure 25. Quantitative Analyses of Butyryl, Tiglyl and Hexanoyl Glycines Using ¹⁸O Standard

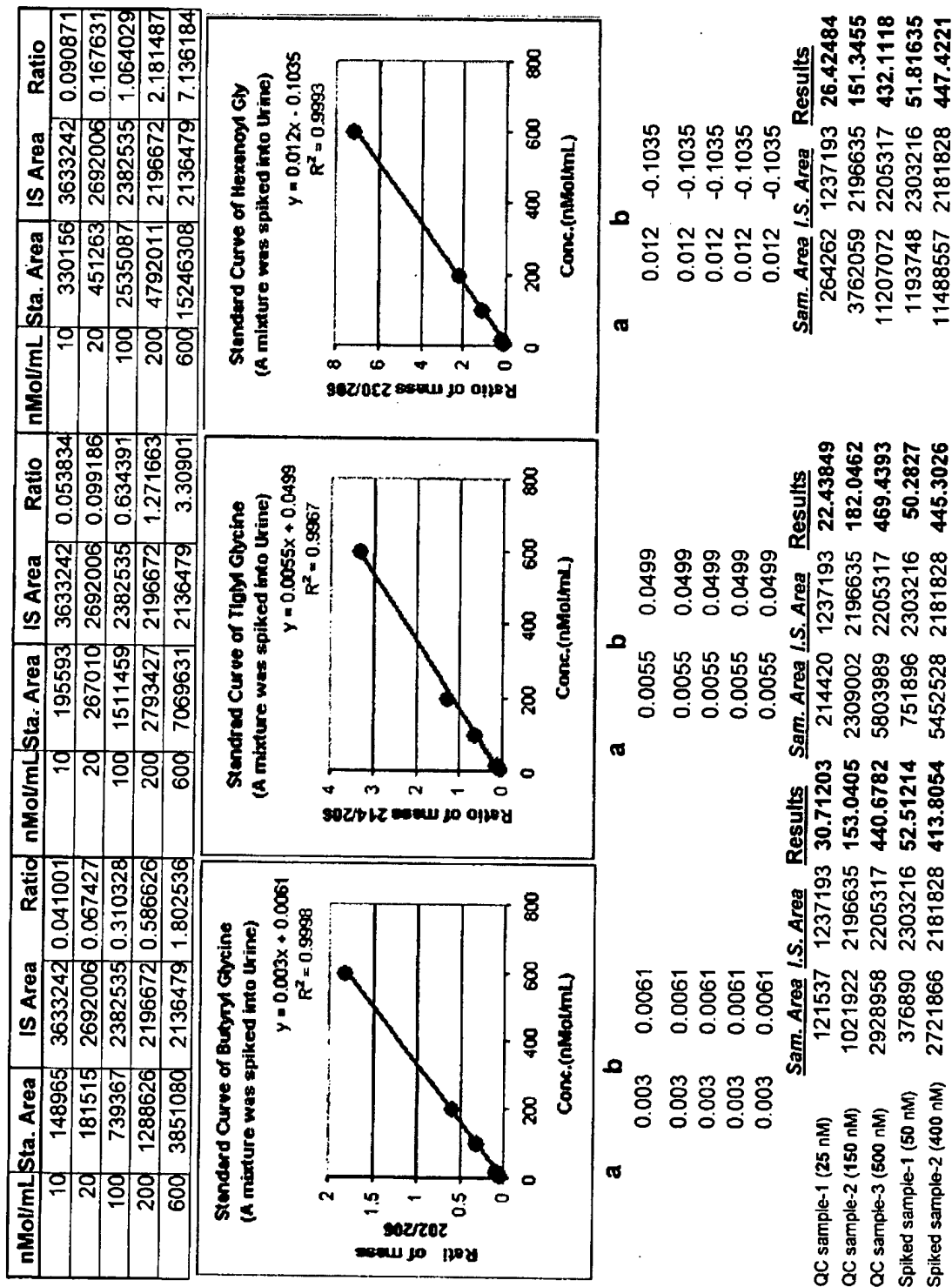


Figure 26

